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DEPARTMENT OF FISH & GAME

Robert L. Salter, Acting Director FEDERAL AID TO

FISH & WILDLIFE RESTORATION

Job Performance Report

Project F-71-R-4

REGIONAL FISHERY MANAGEMENT INVESTIGATIONS

Job V-b. Region 5 Lowland Lake Investigations
Job V-c. Region 5 Stream Investigations
Job V-d. Region 5 Technical Guidance

by

John T. Heimer, Regional Fishery Manager

March, 1980

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JOB PERFORMANCE REPORT

State of Idaho Name: REGIONAL FISHERIES MANAGEMENT INVESTIGATIONS

Project No. F-71-R-4

Job No. V-b Title: Region 5 Lowland Lakes Investigations

Period Covered: 1 January 1979 to 31 December 1979

ABSTRACT

Of 1,200 anglers at Daniels Reservoir in 1978 and 1979, 553 (46%) were still fishing from a boat; 373 (31%) were bank fishing; and 274 (23%) were trolling. In addition, 888 anglers of 1,126 (79%) were fishing with bait; 209 (19%) were fishing with lures; and 29 (2%) were fishing with flies. Anglers indicated a desire for fewer but bigger fish (choice of 52%) to be accomplished by a limit reduction (choice of 38%).

Gill netting indicated an increase in the Utah chub and carp population at Chesterfield Reservoir which we treated in 1978 and the possible establishment of a walleye population in Oneida Reservoir.

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OBJECTIVES

To collect fish population information from selected reservoirs in Region 5.

To collect creel census information needed for the management of selected lowland lakes and reservoirs.

TECHNIQUES USED

Questionnaire-Daniels Reservoir

We completed a preference questionnaire while checking anglers at Daniels Reservoir. We asked a selected number of anglers why they fished Daniels Reservoir and gave them the following four choices: close home, good fishing, like spot and big fish. We then asked the anglers if they preferred to catch twice as many fish as present but only one-half the size, the size they were presently catching or only one-half the present number, but twice the size. If anglers responded by saying they preferred a smaller fish they were then asked if it should be accomplished by a year round fishing season or an increased limit. If anglers preferred larger fish, they were then asked if it should be accomplished by a reduced limit, shortened season or gear restriction. In addition, we collected information as to the methods of fishing.

Reservoir Gill Netting

We made gill net sets in the following reservoirs in 1979 to assess their fish population: Chesterfield, Condie, Oneida, Treasureton and Windor. In all cases overnight sets were made and experimental nylon nets used. In all cases, fish sizes were determined by total length measurements.

Creel Census

Virtually all personnel in Region 5 helped with the collection of creel census information; however, the majority was collected by members of the Enforcement Bureau. In most instances, anglers were contacted while fishing and information recorded as to the number of hours fished and catch.

FINDINGS

Daniels Reservoir-Fishing Methods and Questionnaire Results

In 1978 and 1979 we checked fishing methods of 1,200 anglers at Daniels Reservoir. Of this total 553 (46%) were still fishing from a boat; 373 (31%) were bank fishing; and 274 (23%) were trolling (Table 1). In addition, 888 of 1,126 (79%) were fishing with bait; 209 (19%) were fishing with lures; and 29 (2%) were fishing with flies.

In 1978 and 1979 we asked 151 anglers why they fished Daniels Reservoir and gave them a choice of four answers. Of this total, 58 (38%) chose good fishing; 48 (32%) chose close to home; 23 (15%) chose like spot; and 22 (15%) chose big fish (Table 2). Seventy-nine of 151 anglers (52%) indicated a desire for fewer but bigger fish; 61 (41%) indicated they were happy with the present size fish; and 11 (7%) indicated a desire for more fish of a smaller size. Of the 11 anglers wanting more but smaller fish, nine wanted to accomplish it by an increased limit and two by year round fishing. Of the 79 wanting fewer but bigger fish, 30 (38%) asked to accomplish it by a limit restriction; 26 (32%) asked for a shorter season; and 23 (29%) wanted a gear restriction.

Chesterfield Reservoir-Gill Netting

Two overnight gill nets set at Chesterfield Reservoir retrieved on 8 October 1979 captured 41 Utah chubs, 10 hatchery rainbow, 6 cutthroat, 2 brown trout and 2 carp (Table 3). Mean length of the 41 Utah chubs was 198 mm (7.8 inches) and the mean length of the ten hatchery rainbow was 310 mm (12.2 inches). The mean length of the 6 cutthroat, 2 brown trout and 2 carp was 348 mm (13.7 inches), 193 mm (7.6 inches) and 218 mm (8.6 inches), respectively.

Condie Reservoir-Gill Netting

Two overnight gill net sets at Condie Reservoir retrieved 19 June 1979, captured 17 hatchery rainbow and 3 bluegill (Table 3). Mean length of the hatchery rainbow and bluegill was 302 mm (11.9 inches) and 175 mm (6.9 inches), respectively.

Oneida Reservoir-Gill Netting

Two overnight gill net sets at Oneida Reservoir retrieved 10 May 1979, caught 380 yellow perch, 23 Utah chubs, 11 Utah suckers, 3 carp and 1 walleye (Table 3). Mean length of 40 yellow perch was 173 mm (6.8 inches). Mean length of the Utah chubs, Utah suckers and carp was 269 mm (10.6 inches), 447 mm (17.6 inches) and 376 mm (14.8 inches), respectively. The one walleye caught was 193 mm (7.6 inches).

Table 1. Angling methods at Daniels Reservoir in 1978 and 1979.

Year	Number boat anglers		Number bank anglers	Number anglers using		
	Trolling	Still fishing		Flies	Lures	Bait
1978	47	322	195	4	43	517
1979	227	231	178	25	166	371
Totals	274	553	373	29	209	888

Table 2. Preference questionnaire from Daniels Reservoir in 1978 and 1979.

Year and number anglers	Why fish				Size preference			Smaller by		Larger by		
	Close home	Good fishing	Like spot	Big fish	Smaller	Same	Larger	Year round fish	Limit	Limit	Season	G
1978 (53)	16	21	3	13	5	15	33	0	5	13	8	12
1979 (98)	32	37	20	9	6	46	46	2	4	17	18	11
Totals(151)	48	58	23	22	11	61	79	2	9	30	26	23

Table 3. Experimental gill netting results from selected Region 5 reservoirs, 1979. Figures given are the total catch of two net sets at each reservoir.

Reservoir	Date retrieved and hours set	Number of fish captured					
		Hatchery rainbow	Wild rainbow	Cutthroat	Utah suckers	Utah chubs	Carp
Chesterfield [1/]	8 October-18 hr	2	-	6		41	2
Condie [2/]	19 June-20 hr	17	-	-	-	-	-
Oneida [3/]	10 May-20 hr	-	-	-	11	23	3
Springfield	21 October-18 hr	17			5	73	-
Treasureton	18 June-17 hr	11	9	7	2	-	9
Windor [4/]	20 June-21 hr	11	3	2	-	-	-

1/ We captured two brown trout while gill netting at Chesterfield.
2/ We captured three bluegill while gill netting at Condie.
3/ We captured 380 yellow perch and one walleye while gill netting at Oneida.
4/ We captured one green sunfish while gill netting at Windor.

This is the second walleye captured in gill nets at this reservoir (one was captured in 1978 which was 348 mm). One confirmed catch of walleyes (exact number unknown) was taken from the Bear River immediately downstream from the dam. A couple reports (unconfirmed) of walleyes being caught in the area were received. The walleye plantings and annual gill netting at this reservoir should be continued.

Springfield Reservoir-Gill Netting

Two overnight gill net sets at Springfield Reservoir retrieved 21 November caught 73 Utah chubs, 17 hatchery rainbow and 5 Utah suckers (Table 3). Mean length of the three fish species was 282 mm (11.1 inches), 391 mm (15.4 inches), and 351 mm (13.8 inches), respectively.

Treasureton Reservoir-Gill Netting

Two overnight gill nets set at Treasureton Reservoir retrieved 18 June 1979, caught 11 hatchery rainbow, 9 wild rainbow, 9 carp, 7 cutthroat and 2 Utah suckers (Table 3). Mean length of the hatchery rainbow, wild rainbow and cutthroat was 272 mm (10.7 inches), 206 mm (8.1 inches) and 239 mm (9.4 inches), respecively. Mean length of the carp and Utah suckers was 432 mm (17.0 inches) and 378 mm (14.9 inches), respectively.

Windor Reservoir-Gill Netting

Two overnight gill nets set at Windor Reservoir retrieved 20 June 1979, caught 11 hatchery rainbow, 3 wild rainbow, 2 cutthroat and 1 green sunfish (Table 3). Mean length of the hatchery and wild rainbow was 338 mm (13.3 inches) and 422 mm (16.6 inches), respectively. Mean length of the cutthroat was 447 mm (17.6 inches) and the green sunfish was 109 mm (4.3 inches).

Creel Census

Heavily checked waters by department personnel in Region 5 during 1979 included American Falls Reservoir, Chesterfield Reservoir, Daniels Reservoir and Twenty Four Mile Reservoir (Table 4).

Table 4. Anglers interviewed, hours fished and catch from various reservoirs in Region 5 during 1979.

Reservoir & Month	Number anglers checked			Total hours fished	Total catch				Fish per	
	Resident	Nonresident	Total		Rainbow	Cutthroat	Coho	Total	Anglers	Hour
American Falls Reservoir										
January	17	-	17	29	13	-	-	13	.76	.45
February	112	-	112	286	65	-	-	65	.58	.23
March	65	-	65	200	50	-	2	52	.80	.26
April	12	-	12	24	11	-	-	11	.92	.46
June	29	-	29	86	9	-	-	9	.31	.10
July	91	-	91	241	54	-	-	54	.59	.22
August	69	-	69	133	161	-	-	161	2.33	1.21
September	14	-	14	48	26	-	-	26	1.86	.54
Totals	409	-	409	1,047	389	-	2	391	.96	.37
Chesterfield Reservoir										
May	89	2	91	422	26	9		35	.38	.08
June	284	6	290	1,235	153	7	-	160	.55	.13
July	355	27	382	1,684	234	9		243	.64	.14
August	210	16	226	1,010	271	-	-	271	1.20	.27
September	352	13	365	1,644	571	-	-	571	1.56	.35
Totals	1.290	64	1,354	5,995	1,255	25	-	1,280	.95	.21

Table 4. Continued

Reservoir & Month	Number anglers checked			Total hours fished	Total fish catch				Fish per	
	Resident	Nonresident	Total		Rainbow	Bluegill	Cutthroat	Total	Angler	Hour
Condie Reservoir										
June	16	2	18	78	1	112	-	113	6.28	1.45
Daniels Reservoir										
May	109	179	288	1,092	519	-	11	530	1.84	.49
June	111	122	233	527	407	-	2	409	1.76	.78
July	53	71	124	316	133	-	-	133	1.07	.42
Totals	273	372	645	1,935	1,059	-	13	1,072	1.66	.55
Deep Creek Reservoir										
May	25	44	69	185	54	-	5	59	.86	.32
June	-	15	15	51	28	-	-	28	1.87	.55
July	5	1	6	15	1	-	-	1	.17	.07
August	-	10	10	26	5	-	-	5	.50	.19
September	5	4	9	22	8	-	-	8	.89	.36
Totals	35	74	109	299	96	-	5	101	.93	.34
Devils Creek Reservoir										
May	17	14	31	71	20	-	1	21	.68	.30
June	36	25	61	216	148	-	-	148	2.43	.69
July	13	14	27	112	42	-	5	47	1.74	.42
August	2	15	17	49	9	-	8	17	1.00	.35
Totals	68	68	136	448	219	-	14	233	1.71	.52

Table 4. Continued

Reservoir & Month	Number anglers checked			Total hours fished	Total fish catch				Fish per	
	Resident	Nonresident	Total		Rainbow	Blue-gill	Cutthroat	Total	Angler	Hour
Foster Reservoir										
March	-	-	2	2	-	-	-	-	0.00	0.00
May	-	-	3	3	-	-	-	-	0.00	0.00
August	-	-	3	3	-	-	-	-	0.00	0.00
Totals	-	-	8	8	-	-	-	-	0.00	0.00
Glendale Reservoir										
May	-	-	3	2	-	-	-	-	0.00	0.00
August	-	16	16	60	28	60	-	88	5.50	1.42
Totals	-	16	19	62	28	60	-	88	5.50	1.42
Hawkins Reservoir										
May	70	-	70	199	162	-	-	162	2.31	.81
July	17	2	19	21	7	-	-	7	.37	.33
Totals	87	2	89	220	169	-	-	169	1.90	.77

Table 4. Continued

Reservoir & Month	Number anglers checked			Total hours fished	Total fish catch					Fish per	
	Resident	Nonresident	Total		Rainbow	Yellow perch	Cut-throat	Blue gill	Total	Angler	Hour
Johnson Reservoir											
January	4	3	7	14	14	2	-	-	16	2.29	1.14
April	5	-	5	8	1	-	-	-	1	.20	.13
August	2	-	2	4	4	-	-	-	4	2.00	1.00
December	-	8	8	11	3	7	-	-	10	1.25	.91
Totals	11	11	22	37	22	9	-	-	31	1.41	.84
McTucker Ponds											
May	19	-	19	29	6	-	-	-	6	.32	.21
Montpelier Reservoir											
May	-	-	28	56	12	-	3	-	15	.54	.27
Oxford Reservoir											
June	8	-	8	54	-	32	-	1	33	4.13	.61

Table 4. Continued

Reservoir & Month	Number anglers checked			Total hours fished	Total fish catch				Fish per	
	Resident	Nonresident	Total		Rainbow	Cutthroat	Largemouth bass	Total	Angler	Hour
St. Johns Reservoir										
July	4	0	4	7	10	-	8	18	4.50	2.57
Springfield Reservoir										
May	81	2	83	285	122	-	-	122	1.47	.43
Treasureton Reservoir										
February	-	-	12	9	11	-	-	11	.92	1.22
August	-	-	2	18	3	-	-	3	1.50	.17
Totals	-	-	14	27	14	-	-	14	1.00	.52
Twenty Four Mile Reservoir										
May	78	2	80	313	140	6	-	146	1.83	.47
June	240	-	240	1,007	365	-	-	365	1.52	.36
July	150	4	154	707	173	2	-	175	1.14	.25
August	64	2	66	162	79	6	-	85	1.29	.52
September	24	-	24	71	24	-	-	24	1.00	.34
Totals	556	8	564	2,260	781	14	-	795	1.41	.35

Table 4. Continued

Reservoir & Month	Number anglers checked			Total hours fished	Total fish catch					Fish per	
	Resident	Nonresident	Total		Rainbow	Blue gill	Large mouth bass	Yellow perch	Total	Angler	Hour
Twin Lakes Reservoir											
May	-	-	22	30	1	168	27	-	196	8.91	6.53
June	4	8	12	25	-	51	13	-	64	5.33	2.56
July	6	9	15	44	6	12	-	-	18	1.20	.41
August	10	2	12	23	-	8	-	-	8	.66	.35
September	-	7	7	24	3	1	1	-	5	.71	.21
Totals	20	26	68	146	10	240	41	-	291	4.28	1.99
Weston Reservoir											
February	8	-	8	26	10	-	-	86	96	12.00	3.69
May	-	-	52	40	22	-	3	42	67	1.29	1.68
Totals	8	-	60	66	32	-	3	128	163	2.72	2.47
Windor Reservoir											
June	2	-	2	4	7	-	-	-	7	3.50	1.75
September	2	2	4	14	7	1	-	-	8	2.00	.57
Totals	4	2	6	18	14	1	-	-	15	2.50	.83
Wiregrass Reservoir											
May	42	-	42	113	50	-	-	-	50	1.19	.44
June	23	-	23	105	60	-	-	-	60	2.61	.57
Totals	65	-	65	218	110	-	-	-	110	1.69	.50

JOB PERFORMANCE REPORT

State of Idaho Name: REGIONAL FISHERIES MANAGEMENT INVESTIGATIONS

Project No. F-71-R-4

Title: Region 5 Stream Investigations

Job No. V-c

Period Covered: 1 January 1979 to 31 December 1979

ABSTRACT

From 26 May through 28 September 1979, we conducted a creel census on the Snake River between American Falls Dam and Lake Walcott to assess fishing pressure and catch. Comparisons between the 1979 study and a similar study in 1971 indicated both fishing pressure and catch was down considerably. In 1971 and 1979 anglers averaged .31 and .24 rainbow per hour, respectively. Anglers fished an estimated 71,947 hours in 1971 and 46,416 hours in 1979. They caught 21,087 rainbow in 1971 and 11,482 rainbow in 1979. This fish species made up 95.6% of the catch in 1971 and 96.5% in 1979. In 1971 56% of the rainbow trout caught were less than 353 mm (13.9 inches) and 84% less than 404 mm (15.9 inches). In 1979 17% of the rainbow caught were less than 353 mm (13.9 inches) and 65% less than 404 mm (15.9 inches). Of 563 rainbow trout checked, 424 (75%) had definite hatchery marks.

We documented the existence of a virtually pure strain of Bonneville cutthroat Salmo clarki utah in Dry Creek and Preuss Creek during 1979.

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OBJECTIVES

To assess fishing pressure and harvest from the Snake River between American Falls Dam and Lake Walcott.

To assess fishing pressure and harvest from major fishing streams in Region 5.

TECHNIQUES USED

Snake River Studies

As a result of dissolved oxygen and low flow problems in the Snake River between American Falls Dam and Lake Walcott in 1977 and 1978 we assessed the 1979 fishery. For valid comparisons we used the same techniques as reported by Reid (1972). Like Reids, ours started when the general fishing season opened same as the river opening); however, the 1979 study terminated on 28 September, while the 1971 study terminated when the river was closed to fishing (31 October). Our fishing effort and catch comparisons covered virtually the same time periods for valid study results.

Creel Census-Streams

Virtually all personnel in Region 5 helped with the collection of stream creel census information. Most, however, was collected by officers of the Enforcement Bureau.

FINDINGS

Snake River Studies

During the 1979 census period (26 May to 28 September) we checked 841 bank anglers who had fished 1,536 hours and caught 196 rainbow, 5 cutthroat, 5 brown trout and 2 mountain whitefish (Table 1). Overall fish per bank angler was .25 and fish per hour .14. During the same period we checked 361 boat anglers who had fished 1,377 hours and caught 495 rainbow, 5 cutthroat, 5 brown trout and 2 mountain whitefish (Table 2). Overall fish per angler was 1.40 and fish per hour .37. Catch comparisons indicate that boat anglers have considerably higher success rates than bank anglers. Bank and boat anglers combined averaged .59 fish per angler and .27 fish per hour (Table 3).

In 1971 and 1979 rainbow trout made up 95.6% and 96.5%, respectively, of the game fish harvested from the river. Virtually the only difference in the fishery between the two years was the number of coho seen in 1971 (408 fish). At this time we were planting greater numbers of coho in upstream waters. In 1979 we examined 563 rainbow trout to assess their origin. Of this total 424 (75%) showed definite evidence of originating in a hatchery (from either bent

Table . Number bank anglers interviewed, hours fished and catch from the Snake River between American Falls Dam and Lake Walcott, 1979.

Interval date	Number bank anglers interviewed	Number hours fished	Number fish caught					Fish per	
			Rainbow	Cutthroat	Mountain whitefish	Brown	Total	Angler	Hour
26 May-8 June	172	363	73	4	1	1	79	.46	.22
9 June-22 June	104	198	10	0	2	0	12	.12	.06
23 June-6 July	121	206	3	0	1	0	4	.03	.02
7 July-20 July	73	133	8	1	1	0	10	.14	.08
21 July-3 August	64	113	15	0	0	1	16	.25	.14
4 August-17 August	103	161	1	0	0	0	1	.01	.01
18 August-31 August	38	61	5	0	0	0	5	.13	.08
1 September-14 September	83	162	34	0	0	0	34	.41	.21
15 September-28 September	83	139	47	0	0	0	47	.57	.34
Totals	841	1,536	196	5	5	2	208	.25	.14

Table 2. Number boat anglers interviewed, hours fished and catch from Snake River between American Falls Dam and Lake Walcott, 1979.

Interval date	Number boat anglers interviewed	Number hours fished	Number fish caught					Fish per	
			Rainbow	Cutthroat	Brown	Mountain whitefish	Total	Angler	Hour
26 May-8 June	100	472	141	3	5	1	150	1.50	.32
9 June-22 June	30	144	29	0	0	0	29	.97	.20
23 June-6 July	37	165	38	2	0	0	40	1.08	.24
7 July-20 July	26	86	22	0	0	0	22	.85	.26
21 July-3 August	10	30	10	0	0	0	10	1.00	.33
4 August-17 August	32	99	53	0	0	0	53	1.66	.54
18 August-31 August	36	91	56	0	0	0	56	1.56	.62
1 September-14 September	57	164	88	0	0	0	88	1.54	.54
15 September-28 September	33	126	58	0	0	1	59	1.79	.47
Totals	361	1,377	495	5	5	2	507	1.40	.37

Table 3. Number of anglers interviewed, hours fished and catch by boat and bank anglers from the Snake River between American Falls Dam and Lake Walcott, 1979.

Interval date	Number anglers interviewed	Number hours fished	Number fish caught					Fish per	
			Rainbow	Cutthroat	Brown	Mountain whitefish	Total	Angler	Hour
26 May-8 June	272	835	214	7	6	2	229	.84	.27
9 June-22 June	134	342	39	0	2	0	41	.31	.12
23 June-6 July	158	372	41	2	1	0	44	.28	.12
7 July-20 July	99	218	30	1	1	0	32	.32	.15
21 July-3 August	74	143	25	0	0	1	26	.35	.18
4 August-17 August	135	260	54	0	0	0	54	.40	.21
18 August-31 August	77	152	61	0	0	0	61	.79	.40
1 September-14 September	140	326	122	0	0	0	122	.87	.37
15 September-28 September	113	265	105	0	0	1	106	.94	.40
Totals	1,202	2,913	691	10	10	4	715	.59	.27

fin rays or missing fins). However, this number may be conservative as some fish of hatchery origin may not show these characteristics. During comparable periods anglers averaged .31 rainbow per hour in 1971 and .24 in 1979. This drop in catch rate could be due to less hatchery fish released and restricted water levels in American Falls Reservoir which acts as a large rearing pond.

During the census interval, bank anglers fished an estimated 24,313 hours and caught 3,444 rainbow trout, 101 cutthroat, 80 brown trout and 37 mountain whitefish (Table 4). The estimated hours fished by bank anglers was approximately 53% of that in 1971 (46,032). In addition, the 1979 rainbow catch was only 37% of the 1971 catch.

During the census period boat anglers fished an estimated 22,103 hours and caught 8,038 rainbow trout, 75 cutthroat, 91 brown trout and 30 mountain whitefish (Table 5). The estimated hours fished by boat anglers was approximately 85% of that in 1971 (25,915) and the rainbow catch was 69%.

Total estimated hours fished during the census period was 46,416 as compared to 71,947 in 1971 (Table 6). Estimated fish catch in 1979 was 11,482 rainbow, 176 cutthroat, 171 brown trout and 67 mountain whitefish. The total 1979 rainbow catch was only 54% of that for the same period in 1971 (21,087).

An estimated 16,778 angler days were fished during the 1971 census period and 9,670 in 1979. In 1971 less than 3% of the estimated angling pressure occurred after 26 September (our census ended 28 September).

In 1971 and 1979 we measured 1,256 and 569 rainbow trout, respectively. In 1971 a total of 56% of these rainbows were less than 353 mm (13.9 inches) total length as compared to 17% for 1979 (Table 7). Eighty-four percent of the fish measured in 1971 were less than 404 mm (15.9 inches) and 65% in 1979. The length information indicates that fish caught in 1971 were smaller than in 1979. Reasons for this could be the time and size of fish planted in American Falls Reservoir plus its growing conditions for that period when fish size was affected.

In summary, it appears that both fishing pressure and catch are down considerably for the Snake River between American Falls Dam and Lake Walcott. Probably the main reason for this decrease has been the reduced storage capacity and fish plants in American Falls Reservoir. With a storage capacity restriction (this has been lifted with the construction of the new dam) production was less and angler interest lower. Consequently, we reduced our annual fish plant in the reservoir. As most catchable planted rainbows move downstream (out of the reservoir to the river) when poor water quality conditions occur (in July and August) reduced reservoir plants would affect river fishing.

Bonneville Cutthroat

With the help of U. S. Forest Service personnel we collected ten cutthroat trout each from Preuss Creek and Dry Creek, tributaries to Thomas Fork Creek.

Table 4. Estimated hours fished and catch by bank anglers from the Snake River between American Falls Dam and Lake Walcott, 1979.

Interval date	Estimated hours fished	Estimated catch				
		Rainbow	Cutthroat	Brown	Mountain whitefish	Total
26 May-8 June	8,026	1,614	88	22	22	1,746
9 June-22 June	3,572	179	0	36	0	215
23 June-6 July	2,166	30	0	9	0	39
7 July-20 July	1,856	111	13	13	0	137
21 July-3 August	1,812	239	0	0	15	254
4 August-17 August	1,706	10	0	0	0	10
18 August-31 August	914	75	0	0	0	75
1 September-14 September	1,977	413	0	0	0	413
15 September-28 September	2,284	773	0	0	0	773
Totals	24,313	3,444	101	80	37	3,662
24 May-26 September, 1971	46,032	9,388	92	12	45	9,537

Table 5. Estimated hours fished and catch by boat anglers from the Snake River between American Falls Dam and Lake Walcott, 1979.

Interval date	Estimated hours fished	Estimated catch				
		Rainbow	Cutthroat	Brown	Mountain whitefish	Total
26 May-8 June	8,586	2,565	55	91	18	2,729
9 June-22 June	1,766	356	0	0	0	356
23 June-6 July	1,701	391	20	0	0	411
7 July-20 July	1,704	438	0	0	0	438
21 July-3 August	1,113	371	0	0	0	371
4 August-17 August	1,563	836	0	0	0	836
18 August-31 August	2,037	1,253	0	0	0	1,253
1 September-14 September	1,851	990	0	0	0	990
15 September-28 September	1,782	838	0	0	12	850
Totals	22,103	8,038	75	91	30	8,234
24 May-26 September, 1971	25,915	11,699	176	12	174	12,061

Table 6. Estimated hours fished and catch by boat and bank anglers from the Snake River between American Falls Dam and Lake Walcott, 1979.

Interval date	Estimated hours fished	Estimated catch				
		Rainbow	Cutthroat	Brown	Mountain whitefish	Total
26 May-8 June	16,612	4,179	143	113	40	4,475
9 June-22 June	5,338	534	0	36	0	570
23 June-6 July	3,867	422	20	9	0	451
7 July-20 July	3,560	549	13	13	0	575
21 July-3 August	2,925	610	0	0	15	625
4 August-17 August	3,269	846	0	0	0	846
18 August-31 August	2,951	1,328	0	0	0	1,328
1 September-14 September	3,828	1,403	0	0	0	1,403
15 September-28 September	4,066	1,611	0	0	12	1,623
Totals	46,416	11,482	176	171	67	11,896
24 May-26 September, 1971	71,947	21,087	268	24	97	21,476

Table 7. Length frequency of rainbow trout caught by anglers from the Snake River between American Falls Dam and Lake Walcott, 1979.

Dates inclusive	Total lengths and number of fish						
	203MM-251MM (8.0in-9.9in)	254MM-302 (10.0in-11.9in)	309MM-353MM (12.0in-13.9in)	356MM-404MM (14.0in-15.9in)	40bMIT 455MM (16.0in-17.9in)	45/MM-505MM (18.0in-19.9in)	[illegible]
5/26-6/08	1	1	23	45	41	8	4
6/09-6/22	-	5	6	18	5	2	-
6/23-7/06	-	1	4	12	16	6	-
7/07-7/20	-	2	3	9	5	3	-
7/21-8/03	-	1	1	11	5	2	-
8/04-8/17	-	2	9	17	6	5	-
8/18-8/31	-	1	9	41	2	8	-
9/01-9/14	1	1	16	63	26	12	3
9/15-9/28	-	-	10	58	25	12	2
Totals	2	14	81	274	131	58	9
Percent	c1	2	14	48	23	10	2
1971 percent in each length group	3	26	27	28	10	4	2

Dr. Richard L. Wallace at the University of Idaho classified these fish as virtually pure Bonneville cutthroat Salmo clarki, utah. Analysis of cutthroat collected from Giraffe Creek in 1978 indicated these fish were also virtually a pure population.

Creel Census

Catch rates of trout from streams varied considerably during 1979 (Table 8). We checked high numbers of anglers who had fished Pebble Creek and Toponce Creek at a Portneuf River check station.

LITERATURE CITED

Reid, Will W., 1972. Snake River Fisheries Investigations, Job Completion Report, Idaho Department of Fish and Game, Project F-63-R-1. 57 pp.

Table 8. Anglers interviewed, hours fished and catch from various streams in Region 5 during 1979.

Stream and month	Number anglers checked			Total hours fished	Total fish caught					Fish per	
	Resident	Nonresident	Total		Rainbow	Cutthroat	Brown	Eastern brook	Total	Angler	Hour
Bear River											
March	-	-	4	4	-	-	-	-	-	0.00	0.00
May	3	-	3	6	-	-	-	-	-	0.00	0.00
July	-	6	6	27	22	-	-	-	22	3.67	.81
August	4	-	4	5	4	-	-	-	4	1.00	.80
September	-	9	9	21	14	-	1	-	15	1.67	.71
Totals	7	15	26	63	40	-	1	-	41	1.58	.65
East Fork Rock Creek											
May	13	-	13	18	27	3	-	-	30	2.31	1.67
Eight Mile Creek											
June	6	-	6	8	-	2	-	7	9	1.50	1.13
Garden Creek											
May	10	2	12	23	-	34	-	6	40	3.33	1.74
Pebble Creek											
May	-	-	86	206	27	37	-	2	66	.77	.32
June	-	-	317	1,013	241	202	-	7	450	1.42	.44
July	-	-	408	814	242	111	-	5	358	.88	.44
August	-	-	58	119	55	22	-	-	77	1.33	.65
September	-	-	24	36	20	1	-	-	21	.88	.58
Totals	-	-	893	2,188	585	373	-	14	972	1.09	.44

Table 8. Continued

Stream and month	Number anglers checked: Resident	Nonresident	Total	Total hours fished	Total fish caught: Rainbow	Cutthroat	Eastern brook	Brown	Total	Fish per Angler	Fish per Hour
Portneuf River- Lava Hot Springs to McCammon											
April	-	-	31	12	6	-	-	-	6	.19	.50
Toponce Creek											
May	-	-	66	183	77	88	9	-	174	2.64	.95
June	-	-	162	471	102	98	-	-	200	1.23	.42
July	-	-	141	469	197	58	-	-	255	1.81	.54
August	-	-	18	33	15	23	-	-	38	2.11	1.15
September			55	131	89	4	-	-	93	1.69	.71
Totals	-	-	442	1,287	480	271	9	-	760	1.72	.59
Stump Creek											
June	8	-	8	22	-	28	-	1	29	3.63	1.32

JOB PERFORMANCE REPORT

State of Idaho Name: REGIONAL FISHERY MANAGEMENT INVESTIGATIONS

Project No. F-71-R-4

Title: Region 5 Technical Guidance

Job No. V-d

Period Covered: 1 January 1979 to 31 December 1979

ABSTRACT

During 1979 I reviewed and made comments on 25 proposed stream channel alterations. I also reviewed and made comments on two proposed shoreline alterations and two water right applications.

Author:

John T. Heimer
Regional Fisheries Manager

OBJECTIVES

To provide technical guidance to public and private individuals or agencies on matters pertaining to fisheries management in Region 5.

FINDINGS

In 1979 I reviewed and made comments to the State of Idaho Department of Water Resources on 25 proposed stream channel alterations. Twelve involved the Snake River, 7 the Blackfoot River and tributaries, 5 the Bear River and tributaries and 1 the Little Blackfoot River.

Most of the proposed stream channel alterations had relatively minor impacts on fish populations and were associated with bridge construction or culvert placement.

I reviewed and made comments to the U. S. Army Corps of Engineers regarding two proposed shoreline alterations on Bear Lake. The two proposed alterations would have little effect on the fishery resources there.

I reviewed two water right applications and the reissuance of one NPDES Permit. With personnel from Utah Power and Light Company, I also reviewed the reasons for the water level fluctuations downstream from Oneida Dam.

As part of a cooperative agreement with the State of Idaho Department of Health and Welfare, I collected 40 fish for pesticide testing. I collected five each predatory type and bottom feeding fishes at two Bear River locations and two Snake River locations.

I reviewed and made recommendations on a fish passage study at the new American Falls Dam sponsored by the Idaho Power Company. I also developed comments for and testified at a hearing regarding a water right application for a commercial fish hatchery on the East Fork of Rock Creek.

Submitted by:

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Approved by:

IDAHO DEPARTMENT OF FISH AND GAME

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